Fig. 1

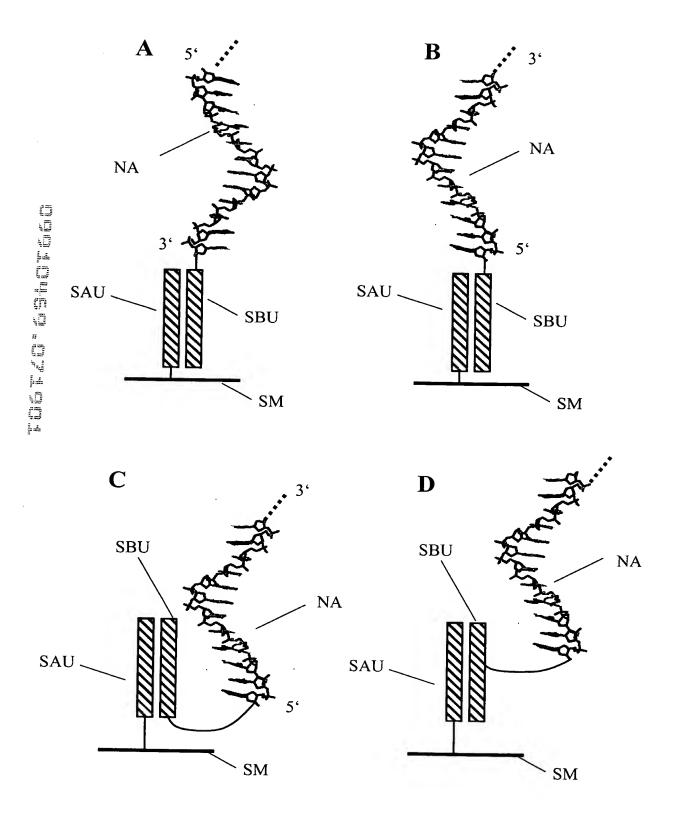
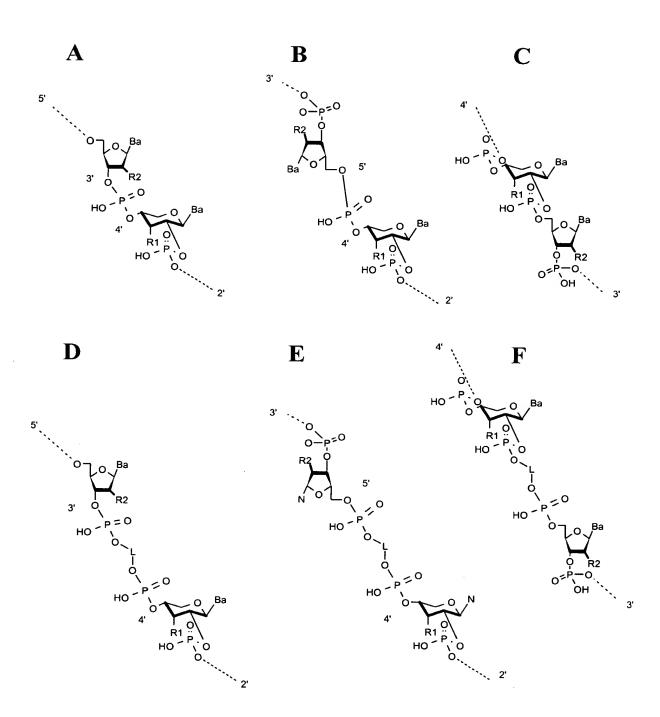


Fig. 2



SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS

UTORS: MARKUS SCHWEITZER, ET ALDOCKET NO. 264/217

CUSTOMER NO. 22249

SHEET 3 OF 33

Fig. 3

A

B

Helical

planar

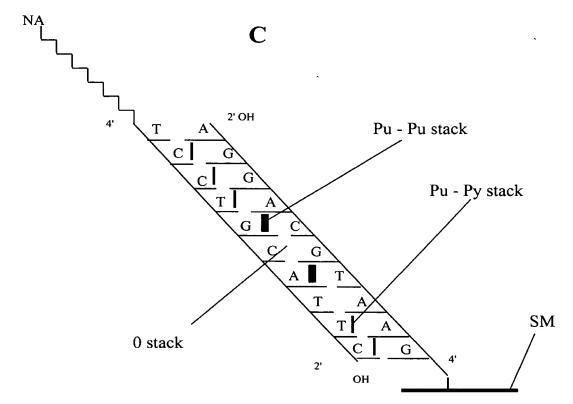
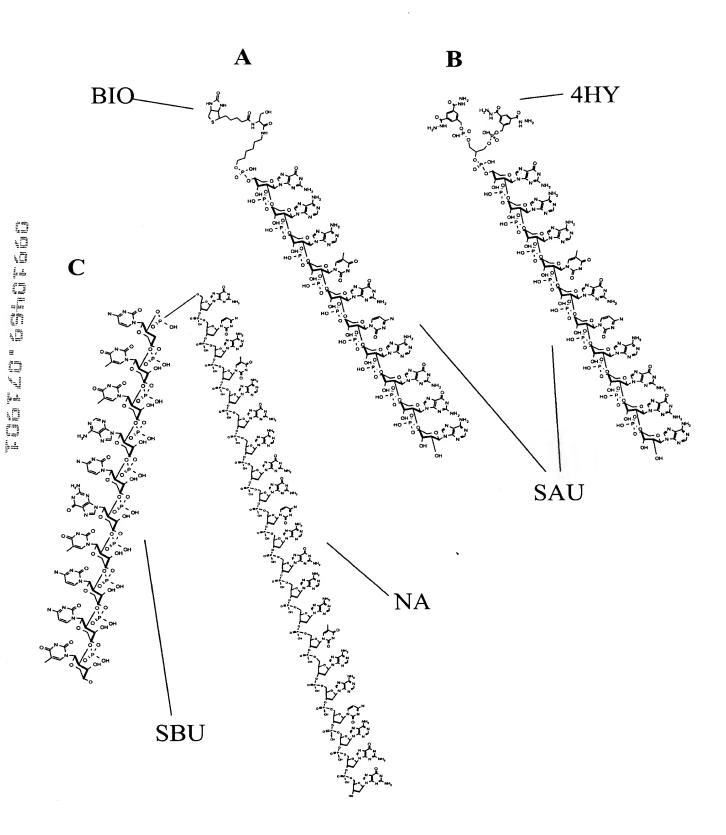
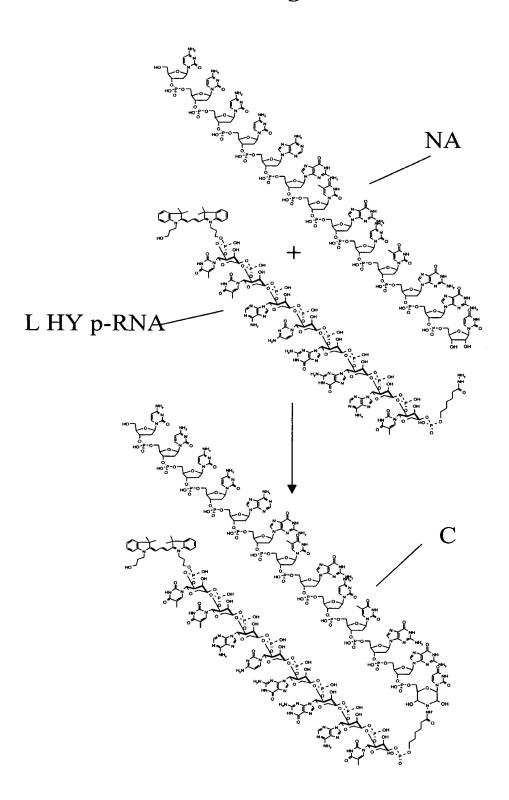


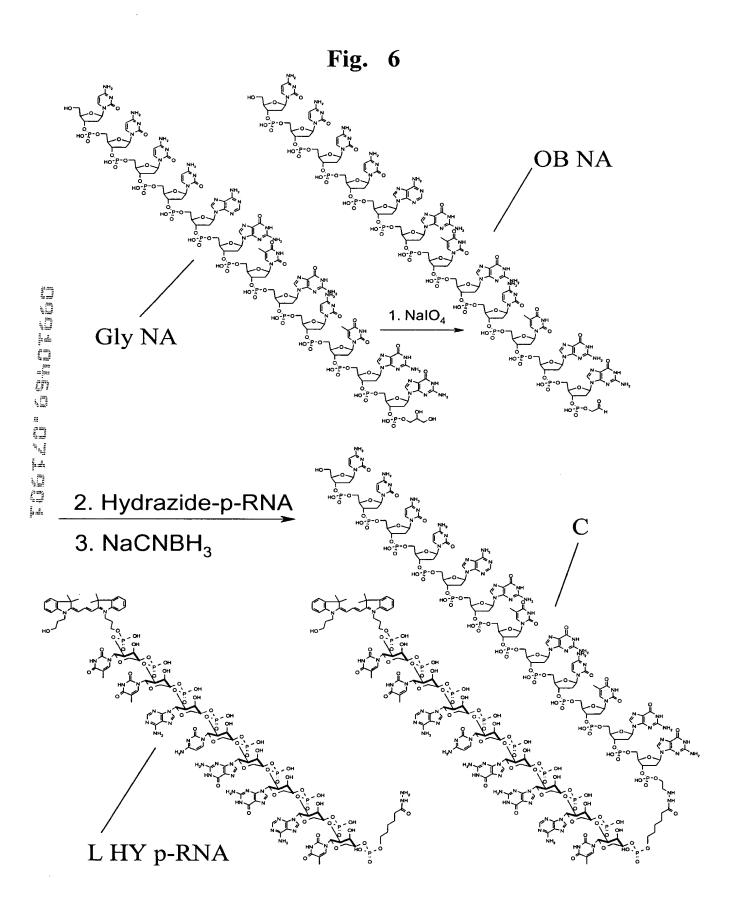
Fig. 4



SORTING AND IMMOBILIZATION SYSTEM
FOR NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
ATORS: MARKUS SCHWEITZER, ET AL.
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 5 OF 33

Fig. 5





SORTING AND IMMOBILIZATION SYSTEM
FOR NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
IN ORS: MARKUS SCHWEITZER, ET AL.
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 7 OF 33

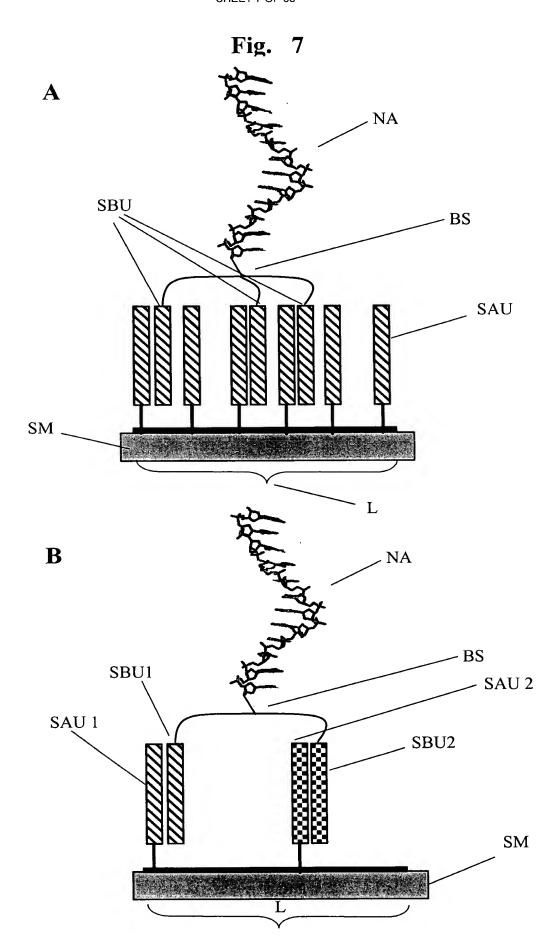
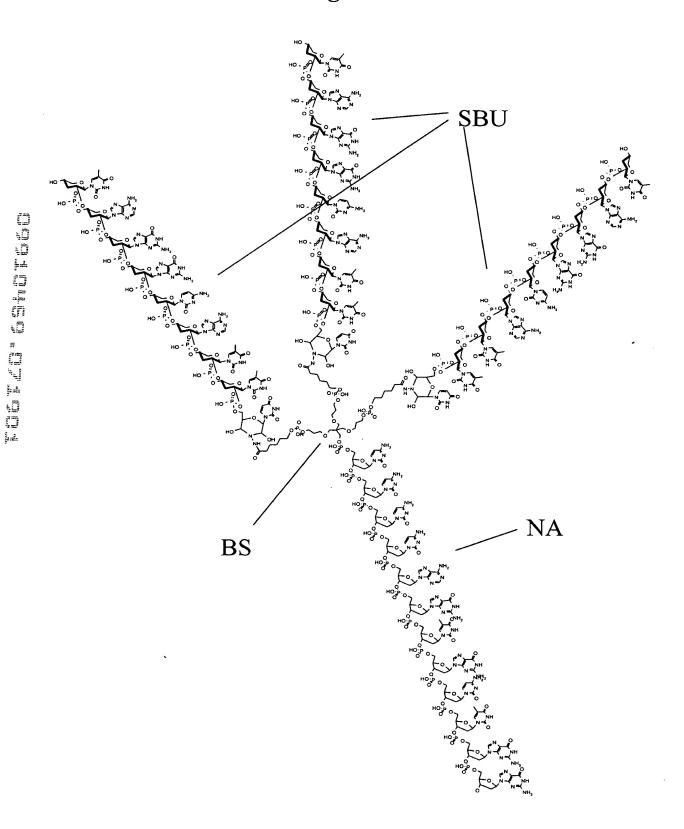


Fig. 8



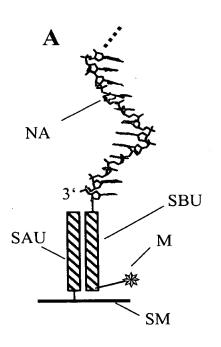
SORTING AND IMMOBILIZATION SYSTEM OR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS

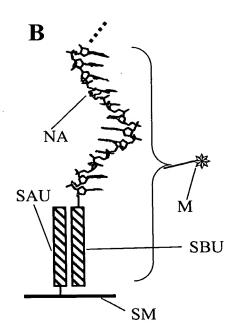
NTORS: MARKUS SCHWEITZER, ET ALDOCKET NO. 264/217

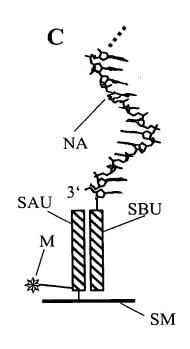
CUSTOMER NO. 22249

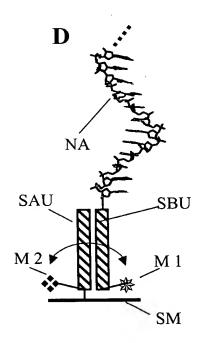
SHEET 9 OF 33

Fig. 9









SORTING AND IMMOBILIZATION SYSTEM NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS

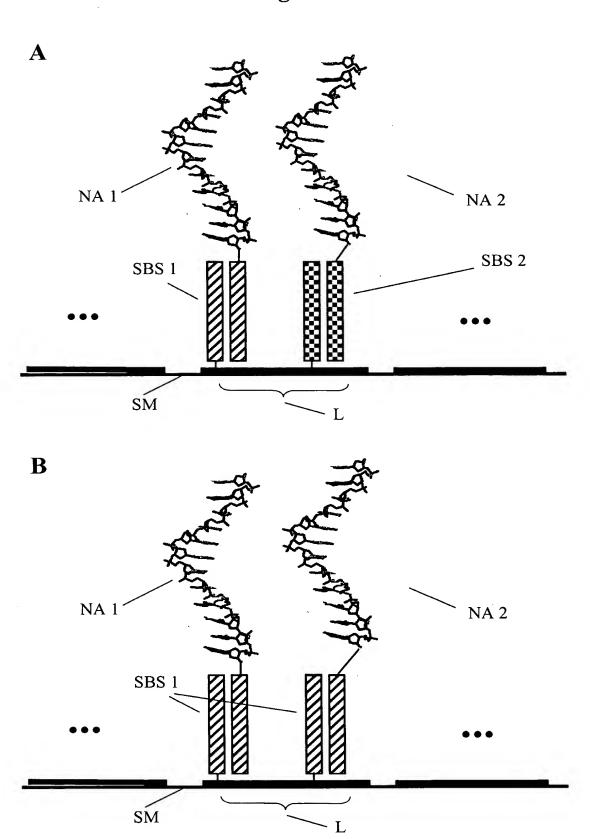
TORS: MARKUS SCHWEITZER, ET AL.

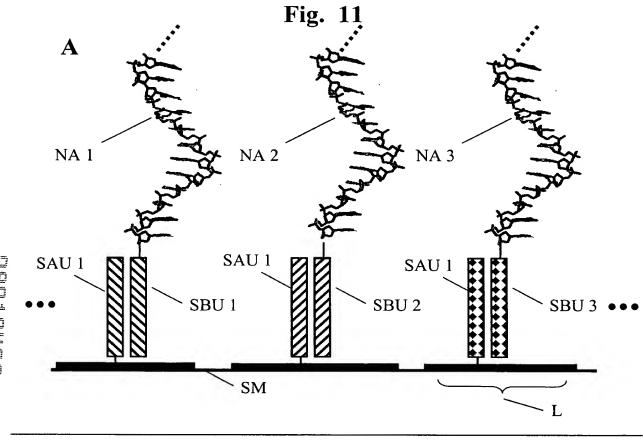
DOCKET NO. 264/217

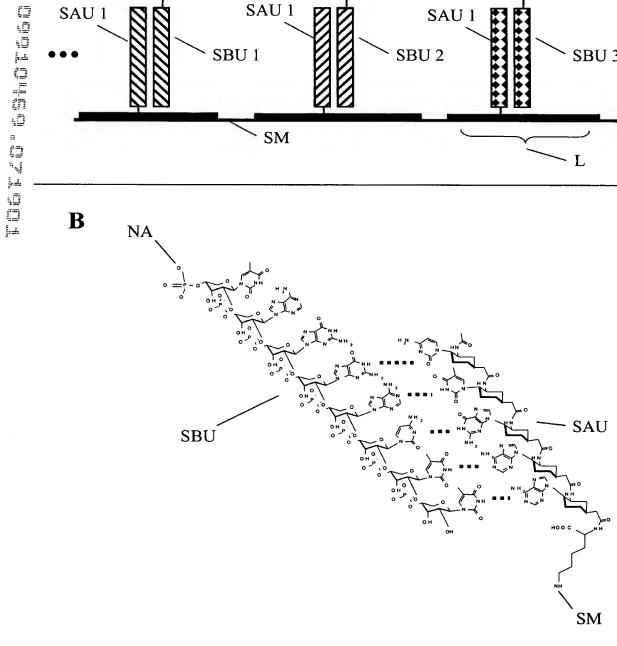
CUSTOMER NO. 22249

SHEET 10 OF 33

Fig. 10



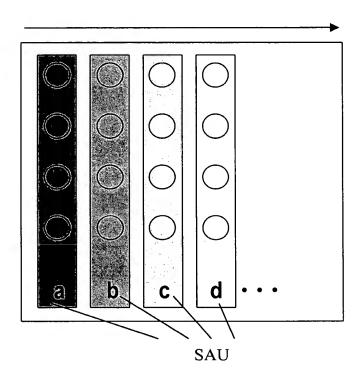




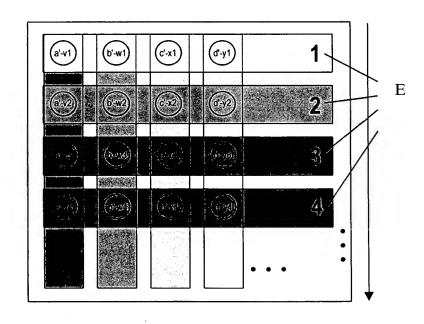
SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS
TORS: MARKUS SCHWEITZER, ET AI DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 12 OF 33

Fig. 12

A:

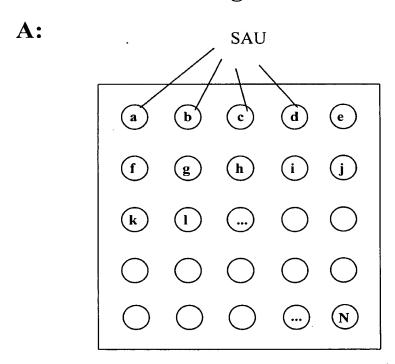


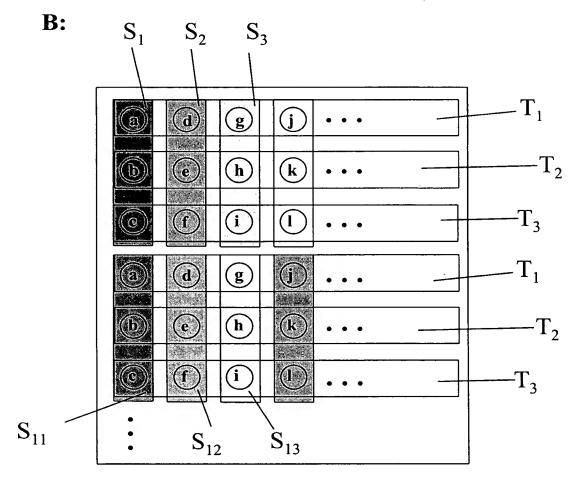
B:



SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS
TORS: MARKUS SCHWEITZER, ET AL. DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 13 OF 33

Fig. 13

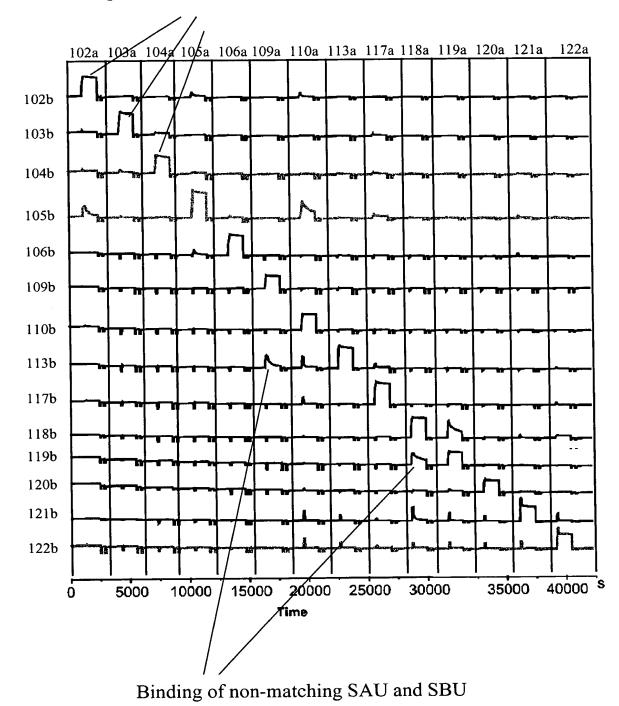




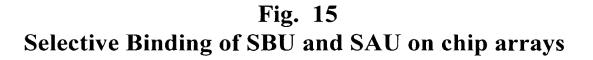
SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS VENTORS: MARKUS SCHWEITZER, ET AL. DOCKET NO. 264/217 CUSTOMER NO. 22249 SHEET 14 OF 33

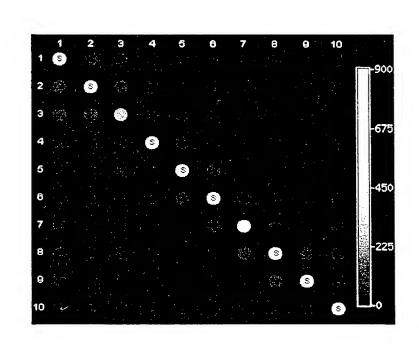
Fig. 14
Selective binding of SBS on SPR

Specific binding of SAU and SBU



SORTING AND IMMOBILIZATION SYSTEM
FOR NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
NTORS: MARKUS SCHWEITZER, ET AL
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 15 OF 33





SORTING AND IMMOBILIZATION SYSTEM
R NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
INTORS: MARKUS SCHWEITZER, ET AL.
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 16 OF 33

Fig. 16
Immobilization of conjugates on SPR chips

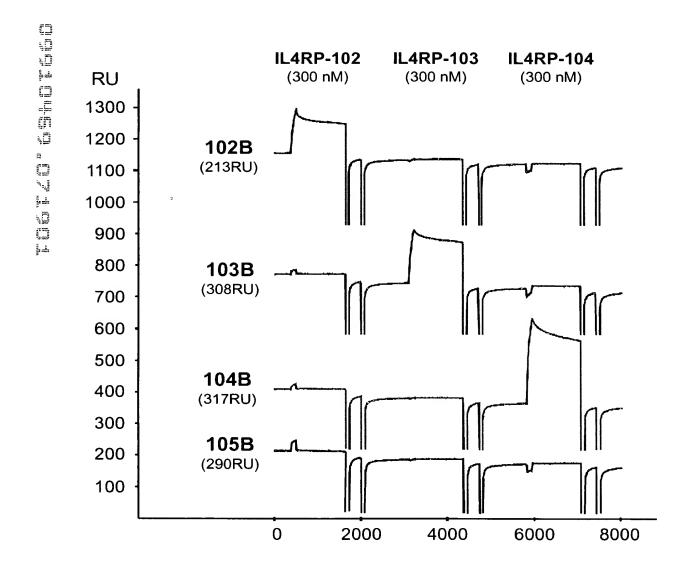
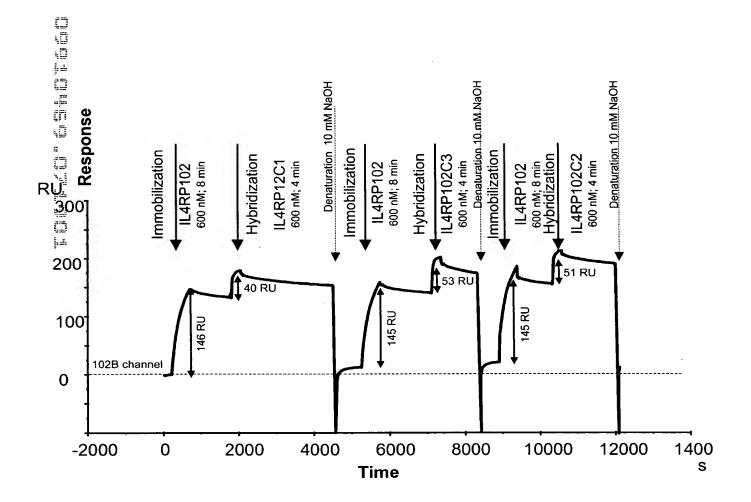
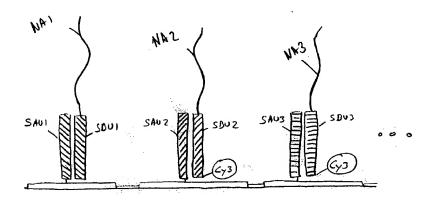


Fig. 17
Immobilization of conjugates
on SPR chips and hybridization with
complementary DNA

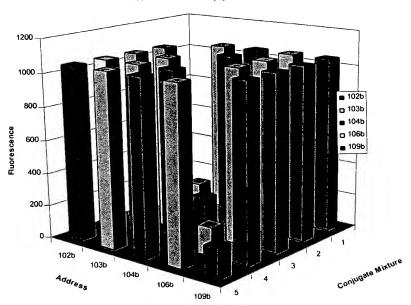


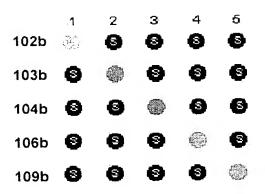
SORTING AND IMMOBILIZATION SYSTEM NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS
TORS: MARKUS SCHWEITZER, ET AL DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 18 OF 33

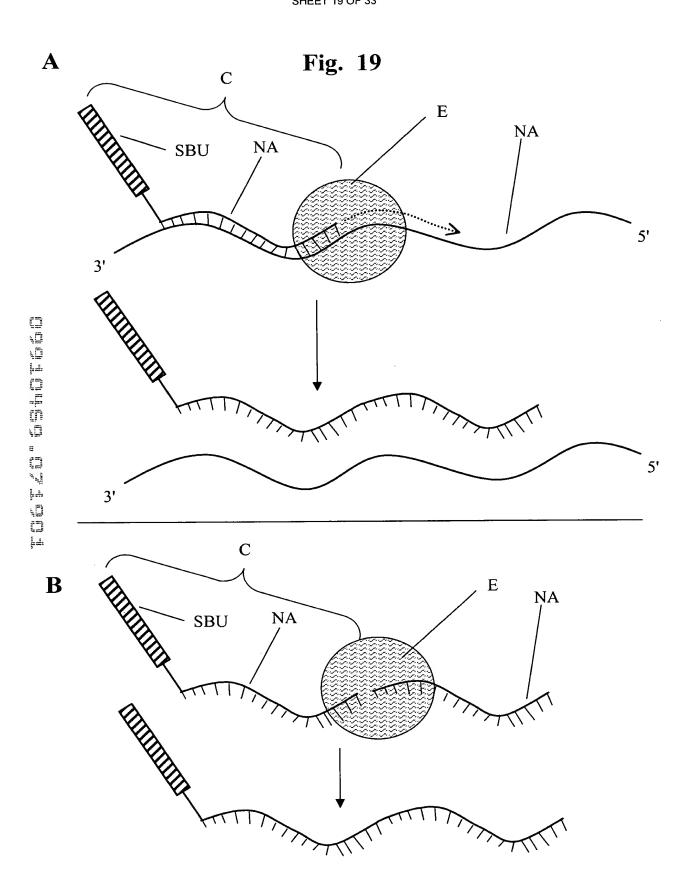
Fig. 18



Deconvolution of Conjugate Mixtures



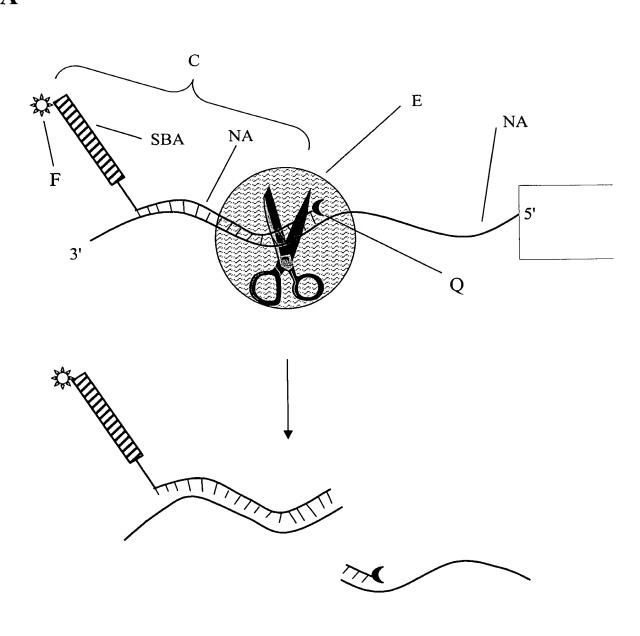




DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 20 OF 33

Fig. 20a

A



SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS
TORS: MARKUS SCHWEITZER, ET AL DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 21 OF 33

Fig. 20b



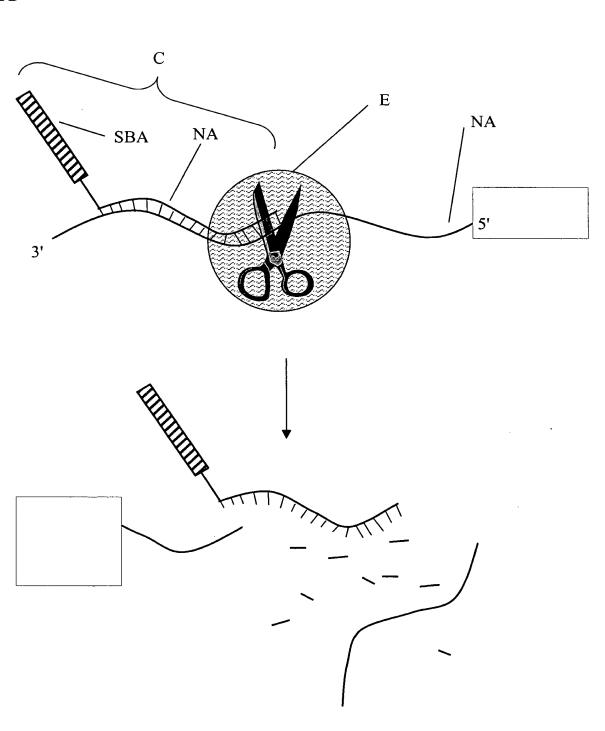
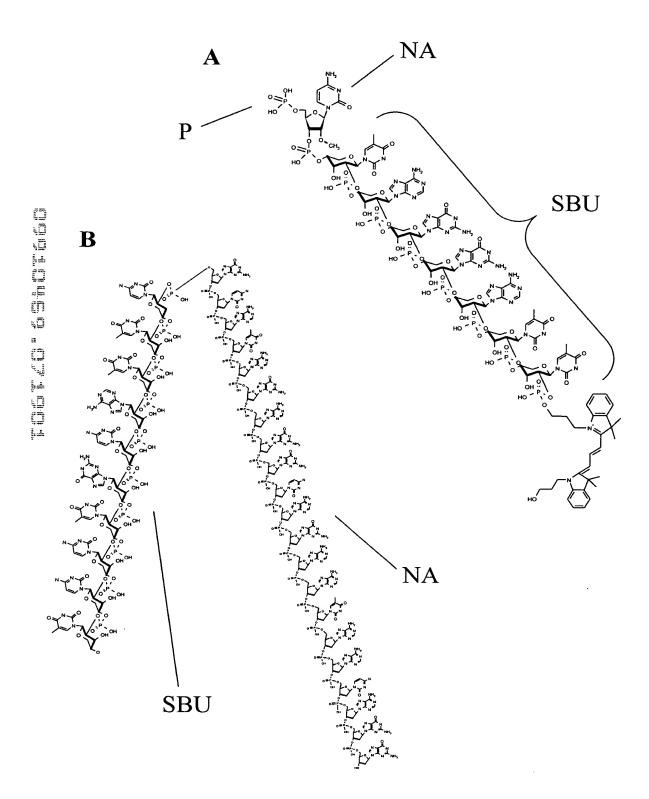


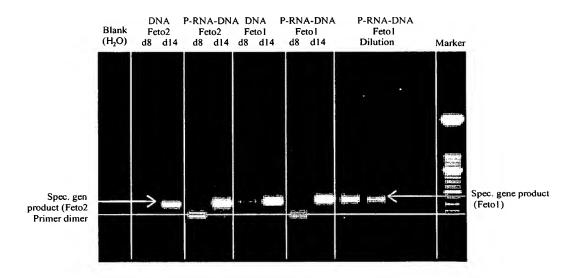
Fig. 21

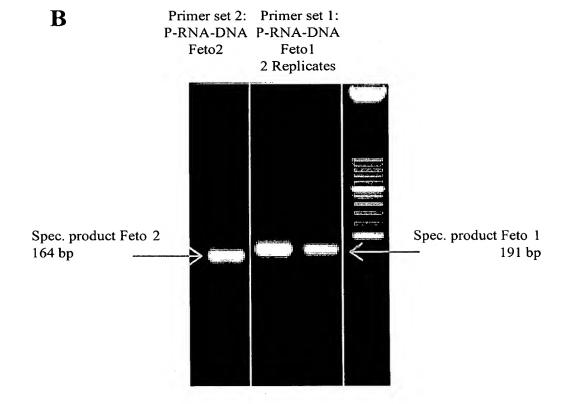


SORTING AND IMMOBILIZATION SYSTEM
FOR NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
NTORS: MARKUS SCHWEITZER, ET AL.
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 23 OF 33

Fig. 22

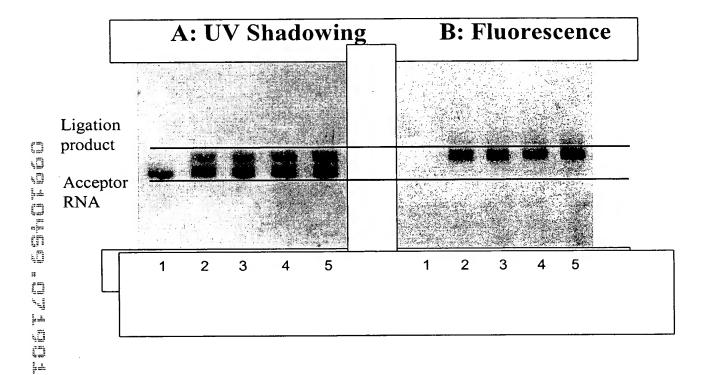
A





SORTING AND IMMOBILIZATION SYSTEM
FOR NUCLEIC ACIDS USING SYNTHETIC
BINDING SYSTEMS
NTORS: MARKUS SCHWEITZER, ET AL
DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 24 OF 33

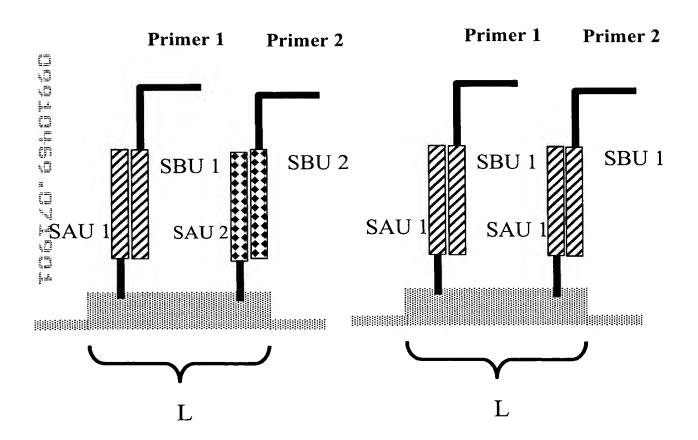
Fig. 23



SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS
ORS: MARKUS SCHWEITZER, ET AL. DOCKET NO. 264/217
CUSTOMER NO. 22249
SHEET 25 OF 33

Fig. 24

Addressing of SBU to SAU SDA Primers on same or different SBU



SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC BINDING SYSTEMS TORS: MARKUS SCHWEITZER, ET AL. DOCKET NO. 264/217 CUSTOMER NO. 22249 SHEET 26 OF 33

Fig. 25

Addressing of SBU to SAU Both SDA primers on the same SBU

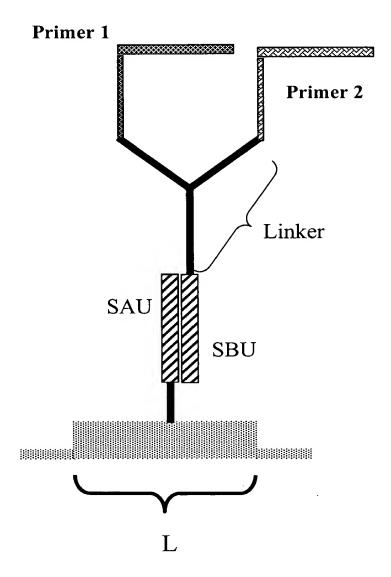
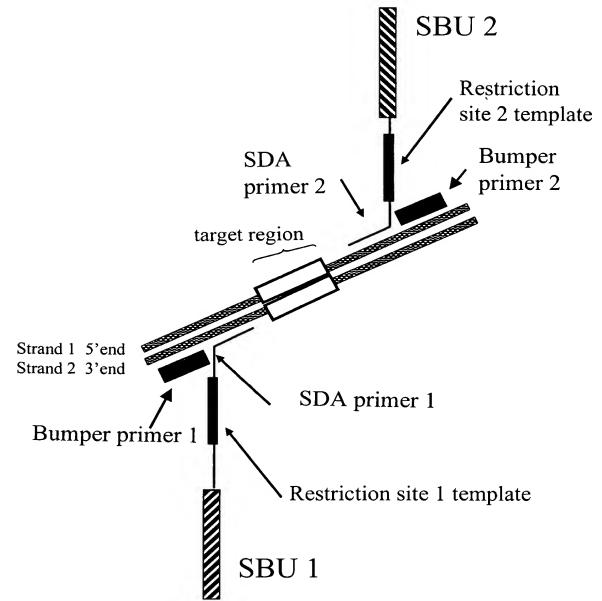


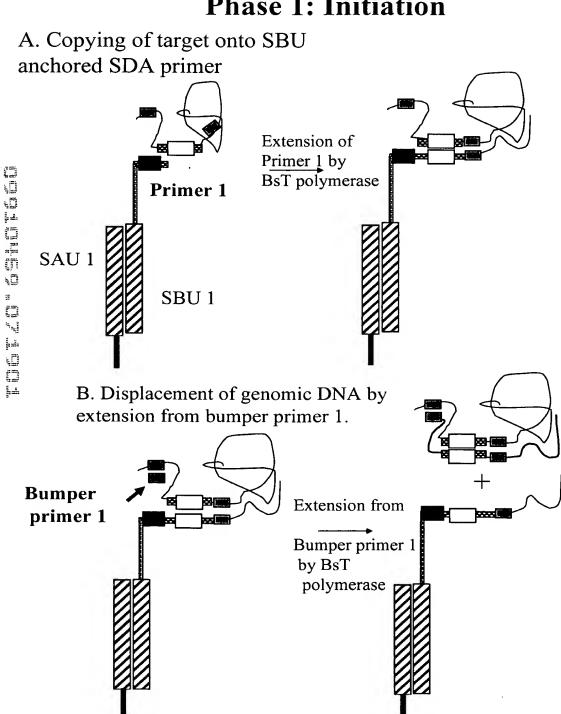
Fig. 26



 SORTING AND IMMOBILIZATION SYSTEM FOR NUCLEIC ACIDS USING SYNTHETIC **BINDING SYSTEMS** ORS: MARKUS SCHWEITZER, ET AL. DOCKET NO. 264/217 CUSTOMER NO. 22249 **SHEET 28 OF 33**

Fig. 27a

Phase 1: Initiation



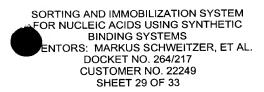
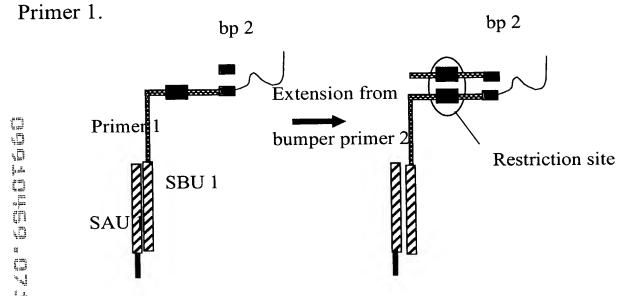


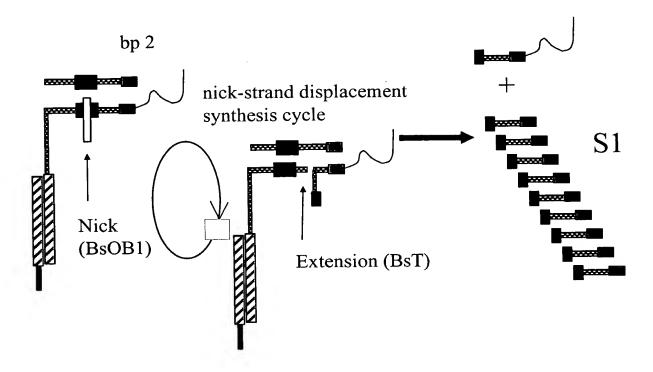
Fig. 27b

Phase 1: Initiation (continued)

C. Restriction site is activated in



D. Generate displaced S1 strands with target sequence



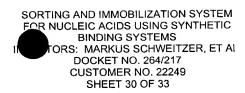
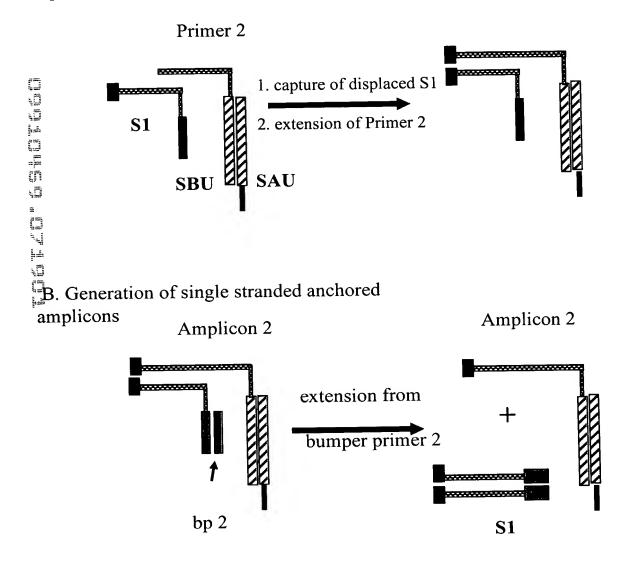


Fig. 27c

Phase 2: Linear Amplification via capture

A. One-for-one increase in anchored amplicon for every Phase 1 displaced strand captured



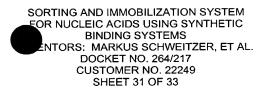
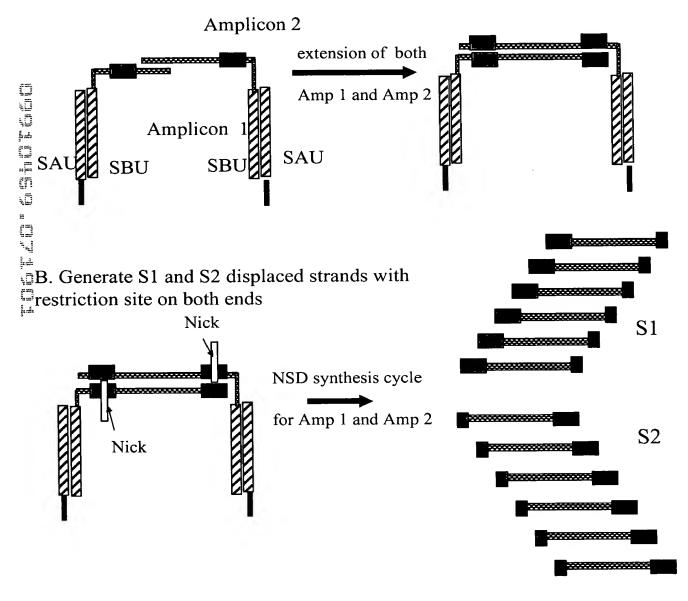
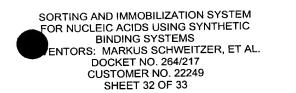


Fig. 27d

Phase 3: Exponential Amplification via bridging and capture

A. Activate restriction site in both anchored Amplicon 1 and anchored Amplicon 2







Phase 3: Exponential Amplification via bridging and capture (cont'd)

C. Establishes a link between displaced strand capture and activation of restriction site for nicking and strand displacement synthesis cycle

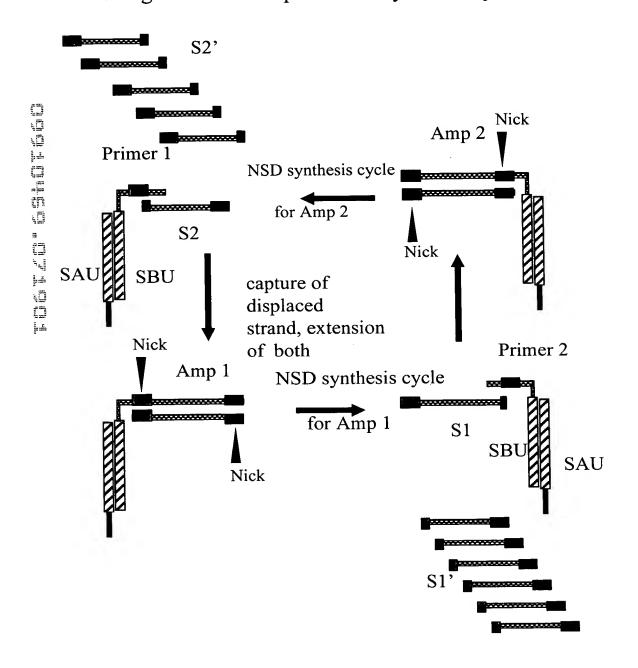




Fig. 28

